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Occultation of Saturn, 1893 *May* 25, *observed at Sydney Observatory.*

(*Communicated by H. C. Russell, B.A., F.R.S., Government Astronomer.*)

Atmosphere was fine and clear, definition good. The definition of the Moon's limb as it passed over the planet at ingress was remarkably sharp as I saw it with a power of 400 on the 11½-inch Equatoreal. Mr. Sellors observed with a 6-inch Grubb telescope, and Mr. Lenehan with a 3-inch (private) telescope. Time used, Sydney mean time.

Ingress.	H.C.R.	H.A.L.	R.P.S.
	h m s	h m s	h m s
First contact ring	5 19 3·4	...	...
„ „ limb	...	5 19 22·0	5 19 16·4
Planet bisected	5 19 36·4	...	...
Last contact limb	5 19 58·4	5 20 7·0	5 19 58·2
„ „ ring	...	...	5 20 13·1

At egress Mr. Russell attended to photographs, Mr. Sellors observed with the 7½-inch guiding telescope of the star camera, Mr. Lenehan with the 3-inch.

Egress.	H.A.L.	R.P.S.	
	h m s	h m s	
First contact ring ...	6 39 10	6 39 5	
„ „ limb ...	...	...	
Last contact limb ...	...	6 39 50	uncertain to the extent of 4 or 5 seconds.
„ „ ring ...	6 40 4	6 40 15	

Observatory, Sydney:
1893 *May* 26.

Results of Micrometer Comparisons of Saturn and γ¹ *Virginis in* 1893 *April.* By John Tebbutt.

Filar-micrometer comparisons were obtained of *Saturn* and the preceding or north component of γ *Virginis* with the 8-inch equatoreal on the evenings of April 3, 4, 5, 6, 8, 10, 11. On April 3, 4, 5, 10, 11, ten comparisons of the planet's preceding and north, and the same number of the following and south limbs were observed. On the 6th ten comparisons of the preceding and north limbs were secured, but, owing to clouds, the number of comparisons of the following and south limbs was limited to seven. On the 8th ten comparisons of the following and north, and the same number of the following and south limbs were made. On this date the preceding limb and the star crossed

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the transit thread too near together for observation. It was difficult, indeed, on this occasion to observe the following limb, and the concluded differences of R.A. are therefore not so satisfactory as those obtained on the other dates. A magnifying power of 74 diameters was employed throughout, and the images—particularly on the 8th, 10th, and 11th—were steady and well defined. The accompanying table exhibits an abstract of the results of the observations. The observed differences of R.A. are corrected for the sidereal time of the transit of the semi-diameter as given in the *Nautical Almanac*, and for a small error in the perpendicularity of the micrometer threads; the observed differences of N.P.D. are corrected for the semi-diameter of the same ephemeris. The apparent places of the preceding component are also taken from the same. A comparison of the results with the places of the planet interpolated with second differences from page 260 of the *Nautical Almanac* leads me to infer that the tabular R.A. and N.P.D. are both a little too large. During an unusually good definition of the planet on April 11 I obtained four double measures of its diameter in N.P.D. with a power of 170. These measures gave 18″·90 as the diameter of the ball in N.P.D.

Results of Micrometric Comparisons of Saturn and γ^1 Virginis.

1893.	Windsor Mean Time.	Observed Diff. R.A. Planet's centre − Star.	Corrections for Refraction.	Corrections for Parallax.	Geocentric Apparent R.A. of Planet's Centre from Observation.	Geocentric Apparent R.A. of Planet's Centre from *Nautical Almanac*.	Diff. N.A. − Obs.
	h m s	m s	s	s	h m s	s	s
Apr. 3	10 53 31	+1 25·88	−0·01	−0·01	12 37 41·51	41·65	+0·14
„ 4	9 55 41	+1 9·57	−0·01	−0·03	12 37 25·18	25·26	+0·08
„ 5	9 13 39	+0 52·99	−0·01	−0·03	12 37 8·61	8·71	+0·10
„ 6	9 3 18	+0 36·05	−0·01	−0·03	12 36 51·67	51·85	+0·18
„ 8	10 43 51	+0 0·92	0·00	−0·01	12 36 16·58	16·88	+0·30
„ 10	8 53 28	−0 31·18	0·00	−0·03	12 35 44·47	44·68	+0·21
11	9 34 27	−0 48·27	0·00	−0·02	12 35 27·39	27·60	+0·21

1893.	Windsor Mean Time.	Observed Diff. N.P.D. Planet's Centre − Star.	Corrections for Refraction.	Corrections for Parallax.	Geocentric Apparent N.P.D. of Planet's Centre from Observation.	Geocentric Apparent N.P.D. of Planet's Centre from *Nautical Almanac*.	Diff. N.A. − Obs.
	h m s	′ ″	″	″	° ′ ″	″	″
Apr. 3	10 53 31	+15 14·2	+0·3	+0·5	91 7 8·1	9·4	+1·3
„ 4	9 55 41	+13 30·0	+0·3	+0·5	91 5 23·9	24·5	+0·6
„ 5	9 13 39	+11 43·9	+0·2	+0·5	91 3 37·7	39·0	+1·3
„ 6	9 3 18	+ 9 56·6	+0·2	+0·5	91 1 50·5	51·7	+1·2
„ 8	10 43 51	+ 6 14·6	+0·1	+0·5	90 58 8·4	10·4	+2·0
„ 10	8 53 28	+ 2 52·2	+0·1	+0·5	90 54 46·0	48·1	+2·1
„ 11	9 34 27	+ 1 5·0	0·0	+0·5	90 52 58·7	1·3	+2·6

Windsor, New South Wales:
1893 *June* 8.

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Observations of the Comet Rordame-Quénisset (b 1893), made at the Royal Observatory, Greenwich.

(*Communicated by the Astronomer Royal.*)

The observations were made with the East, or Sheepshanks, equatoreal, aperture 6·7 inches, by taking transits over two cross wires at right angles to one another, and each inclined 45° to the parallel of declination. Transits were sometimes taken also over a third wire bisecting the angle between the two other wires. Magnifying power 55.

The observations are corrected for refraction but not for parallax; they are also corrected for the error of inclination of the wires and for the motion of the comet.

Greenwich Mean Solar Time.	Observer.	☄−✱ R.A.	Log factor of Parallax.	Corr. for Refraction.	☄−✱ N.P.D.	Log factor of Parallax.	Corr. for Refraction.	No. of Comps.	Apparent R.A. of ☄.	Apparent N.P.D. of ☄.	Comp. ✱
1893. d h m s		m s		s	′ ″		″		h m s	° ′ ″	
July 11 10 51 14	C.D.	+1 35·11	9·5446	+0·03	− 3 33·9	0·8889	−0·9	3	…	…	*a*
11 11 2 31	”	+0 45·06	9·5227	−0·13	+15 29·7	0·8963	+4·1	2	9 0 55·95	44 39 3·3	*b*
16 10 13 23	A.C.	+2 57·13	9·6274	−0·02	+ 2 41·6	0·8218	+0·3	3	10 43 46·83	55 55 15·7	*c*
16 10 13 23	”	+2 1·99	9·6274	−0·03	+ 4 34·7	0·8218	+0·4	3	10 43 46·82	55 55 14·6	*d*
16 10 33 16	A.E.	+3 7·46	9·6141	−0·03	+ 4 25·0	0·8376	+0·4	1	10 43 57·15	55 56 59·2	*c*
16 10 33 16	”	+2 12·16	9·6141	−0·05	+ 6 11·6	0·8376	+0·5	1	10 43 56·97	55 56 51·6	*d*
17 9 37 32	B.	−3 35·27	9·6350	+0·01	− 4 1·1	0·7903	−0·2	2	10 55 13·69	57 55 8·3	*e*
17 10 19 35	H.	−3 14·92	9·6184	0·00	− 0 26·6	0·8260	0·0	1	10 55 34·03	57 58 43·0	*e*
17 10 34 55	”	+0 3·97	9·6085	+0·10	−10 45·6	0·8377	−1·5	2	10 55 40·24	57 59 47·6	*f*
17 10 38 24	C.D.	+0 5·52	9·6053	+0·10	−10 19·3	0·8401	−1·6	4	10 55 41·79	58 0 13·8	*f*
17 10 57 5	”	−2 58·29	9·5902	−0·04	+ 2 38·1	0·8537	+0·7	1	10 55 50·62	58 1 48·4	*e*
21 9 28 24	B.	+2 35·08	9·6104	−0·02	+ 4 46·6	0·7946	+0·2	3	11 26 50·17	64 32 31·9	*g*